



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/942,420

08/30/2001

Ren Da

Da 9-12

7422

7590

05/07/2004

Docket Administrator (Room 3J-219)

Lucent Technologies Inc

101 Crawfords Corner Road

Holmdel, NJ 07733-3030

EXAMINER

LEE, JOHN J

ART UNIT

PAPER NUMBER

2684

6

DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/942,420

Applicant(s)

DA ET AL.

Examiner

JOHN J LEE

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-4 and 10-16** are rejected under 35 U.S.C. 102(b) as being anticipated by Camp, Jr. (US Patent number 6,084,544).

Regarding **claims 1 and 3**, Camp discloses that a method of performing integrity monitoring (Fig. 1 and abstract). Camp teaches that selecting at least one ranging measurement associated with a first ranging source belonging to a first ranging source type (Fig. 1, abstract, and column 2, lines 61 – column 3, lines 6, where teaches selecting a trail time for use in calculating a presumed location of the receiver using at least four satellites). Camp teaches that selecting at least one ranging measurement associated with a second ranging source belonging to a second ranging source type (Fig. 1, abstract, and column 5, lines 11 – 64, where teaches a second range from the presumed location to the fifth satellite is measured). Camp teaches that performing failure detection (unequal) using the selected ranging measurements (first and second) associated with the first and second ranging sources (Fig. 1, abstract, and column 2, lines 61 – column 3, lines 6, where teaches a comparison is then made between the first range to the second range and if the first range is unequal to the second range the presumed location is not actual location and then a new trail time is selected).

Regarding **claims 2 and 13**, Camp discloses that failure detection is performed using weighted ridge regression techniques (abstract, Fig. 1, and column 2, lines 61 – column 3, lines 6, where teaches the method for comparing between the first range to the second range and detecting the first range is unequal to the second range the presumed location).

Regarding **claim 4**, Camp discloses that the first ranging source is a satellite system (abstract and Fig. 1) and the second ranging source type is a land based wireless communication network (Fig. 1 and column 5, lines 11 – 64).

Regarding **claim 10**, Camp discloses that the ranging measurement associated with the first or second ranging source indicates an enhanced observed time difference between a receiver and the first or second ranging source (column 1, lines 17 – 24 and Fig. 1).

Regarding **claims 11 and 14**, Camp discloses all the limitation, as discussed in claim 1. Furthermore, Camp further discloses that extracting ranging measurements from ranging sources belonging to at least two ranging source types (auxiliary information) (column 3, lines 29 – column 4, lines 67 and Fig. 1, where teaches the auxiliary information necessary for determining location and using location information obtained from receiver or data service to calculate auxiliary information). Camp teaches that selecting ranging measurement from the extracted ranging measurements (column 5, lines 32 – column 6, lines 58 and Fig. 2, where teaches determining range measurement from calculating auxiliary information).

Regarding **claim 12**, Camp discloses that performing failure isolation using the selected ranging measurements (Fig. 1, abstract, and column 2, lines 61 – column 3, lines 6).

Regarding **claim 15**, Camp discloses all the limitation, as discussed in claims 1 and 11. Furthermore, discloses that selecting ranging measurements associated with a second ranging source from the extracted ranging measurements (abstract and column 5, lines 32 – column 6, lines 58) if the selected ranging measurements associated with the first ranging source is insufficient to perform failure detection or failure isolation (column 6, lines 30 – column 7, lines 16 and Fig. 2, 3).

Regarding **claim 16**, Camp discloses that selecting ranging measurements is based on perceived reliability associated with each of the extracted ranging measurements (column 5, lines 32 – column 6, lines 58 and Fig. 2, 3).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 5 – 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp in view of Vayanos (US patent number 6,420,999).

Regarding **claims 5 - 9**, Camp does not specifically disclose the limitation “the ranging measurement associated with the first or second ranging source is a PN phase

offset measurement, a pilot phase offset measurement, a signal strength measurement of a signal transmitted by the first or second ranging source, and a round trip delay and one way delay between a receiver and the first or second ranging source”. However, Vayanos discloses the limitation “the ranging measurement associated with the first or second ranging source is a PN phase offset measurement (column 7, lines 44 – column 8, lines 15 and Fig. 1, where teaches there are PN offsets in time between the start of the code transmitted and offsets must be taken into account before comparing the relative timing of the signals received), a pilot phase offset measurement (column 7, lines 44 – column 8, lines 15 and Fig. 1, where teaches offsets must be taken into account before comparing the relative timing of the signals received from each other base station), a signal strength measurement of a signal transmitted by the first or second ranging source (column 11, lines 8 – 52 and Fig. 2, where teaches detecting the received signals are within range of power levels), and a round trip delay and one way delay between a receiver and the first or second ranging source (column 2, lines 21 – 50 and Fig. 1, where teaches determining round trip delay and propagation delay between receiver and base station”. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Camp system as taught by Vayanos, provide the motivation to achieve enhancing location measurement by sources in mobile communication system.

Art Unit: 2684

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sasaki (US Patent number 6,320,536) discloses GPS Receiver.

Syrjarinne et al. (US Patent number 6,433,733) discloses Method for Determining the Position of an Object, a Positioning System, a Receiver and an Electronic Device.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label
"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John J. Lee** whose telephone number is (703) 306-5936. He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00 pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Nay Aung Maung**, can be reached on (703) 308-7745. Any inquiry of a general nature or

Art Unit: 2684

relating to the status of this application should be directed to the Group receptionist
whose telephone number is (703) 305-4700.

J.L
April 30, 2004

John J Lee

A handwritten signature in black ink, appearing to read "Nick Corsaro", written over a horizontal line.

NICK CORSARO
PATENT EXAMINER